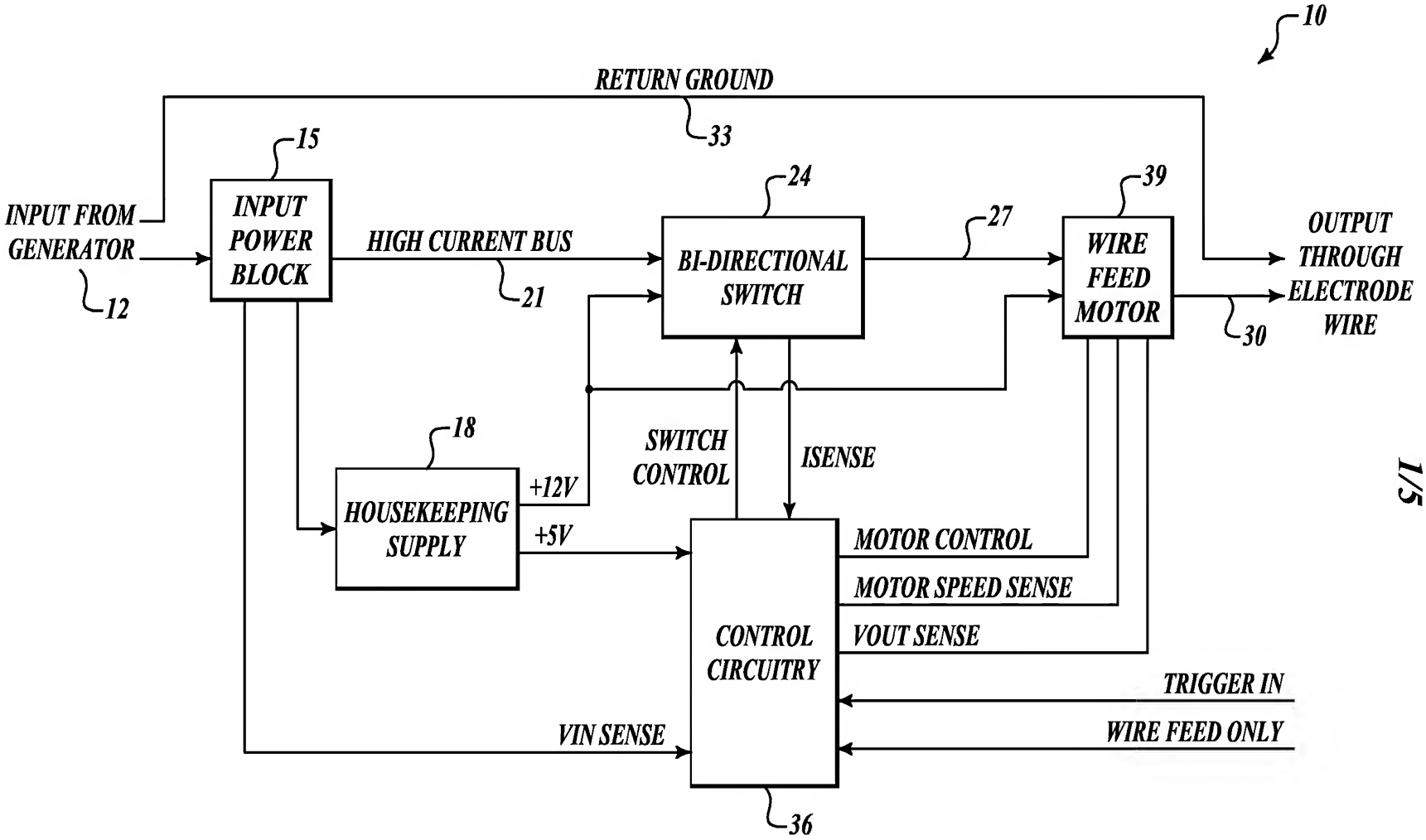
10
RETURN GROUND
33
15
INPUT FROM GENERATOR
12
INPUT POWER BLOCK
HIGH CURRENT BUS
21
24
BI-DIRECTIONAL SWITCH
27
39
WIRE FEED MOTOR
30
OUTPUT THROUGH ELECTRODE WIRE
18
HOUSEKEEPING SUPPLY
+12V
+5V
SWITCH CONTROL
ISENSE
CONTROL CIRCUITRY
MOTOR CONTROL
MOTOR SPEED SENSE
VOUT SENSE
TRIGGER IN
WIRE FEED ONLY
VIN SENSE
36

FIG.1

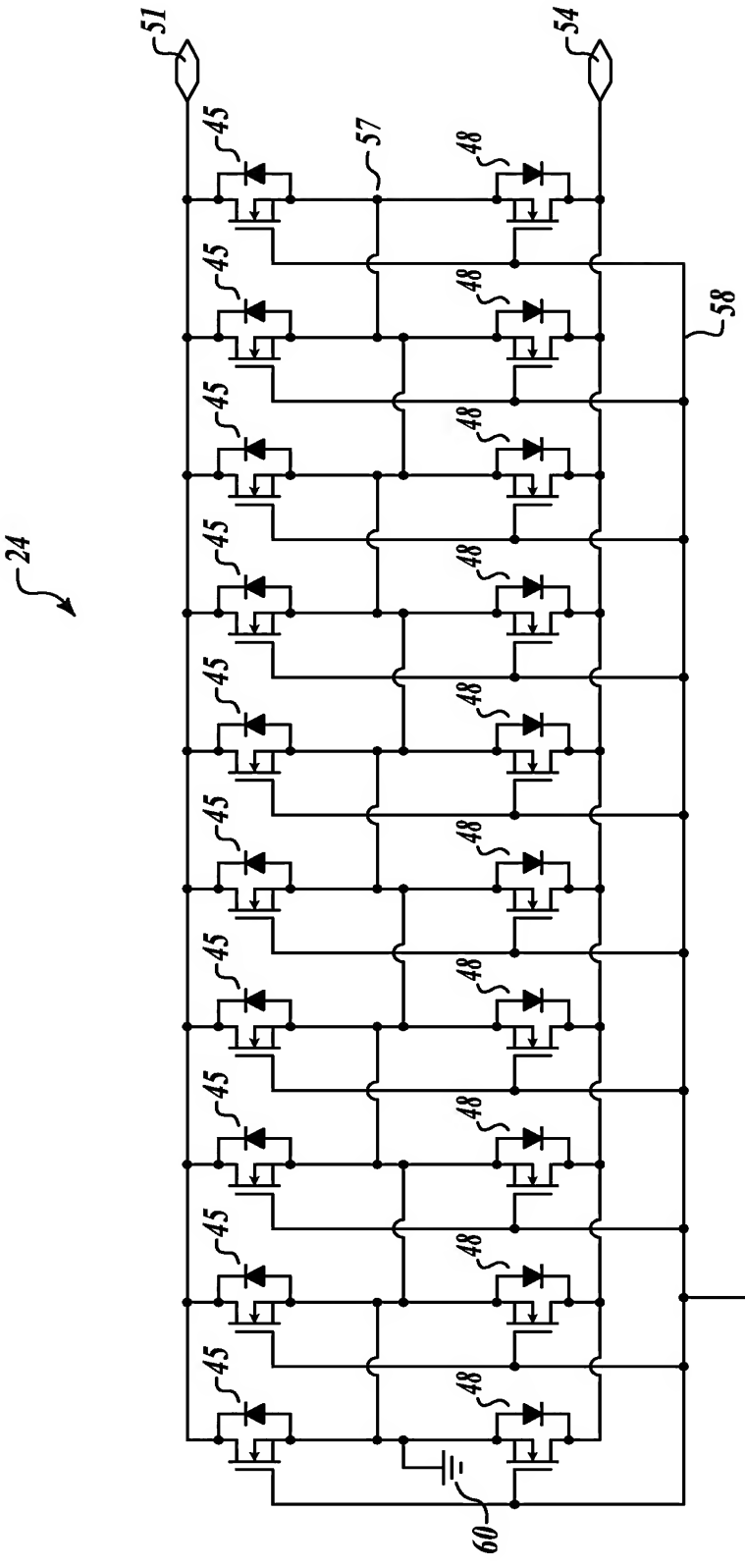

FIG.2

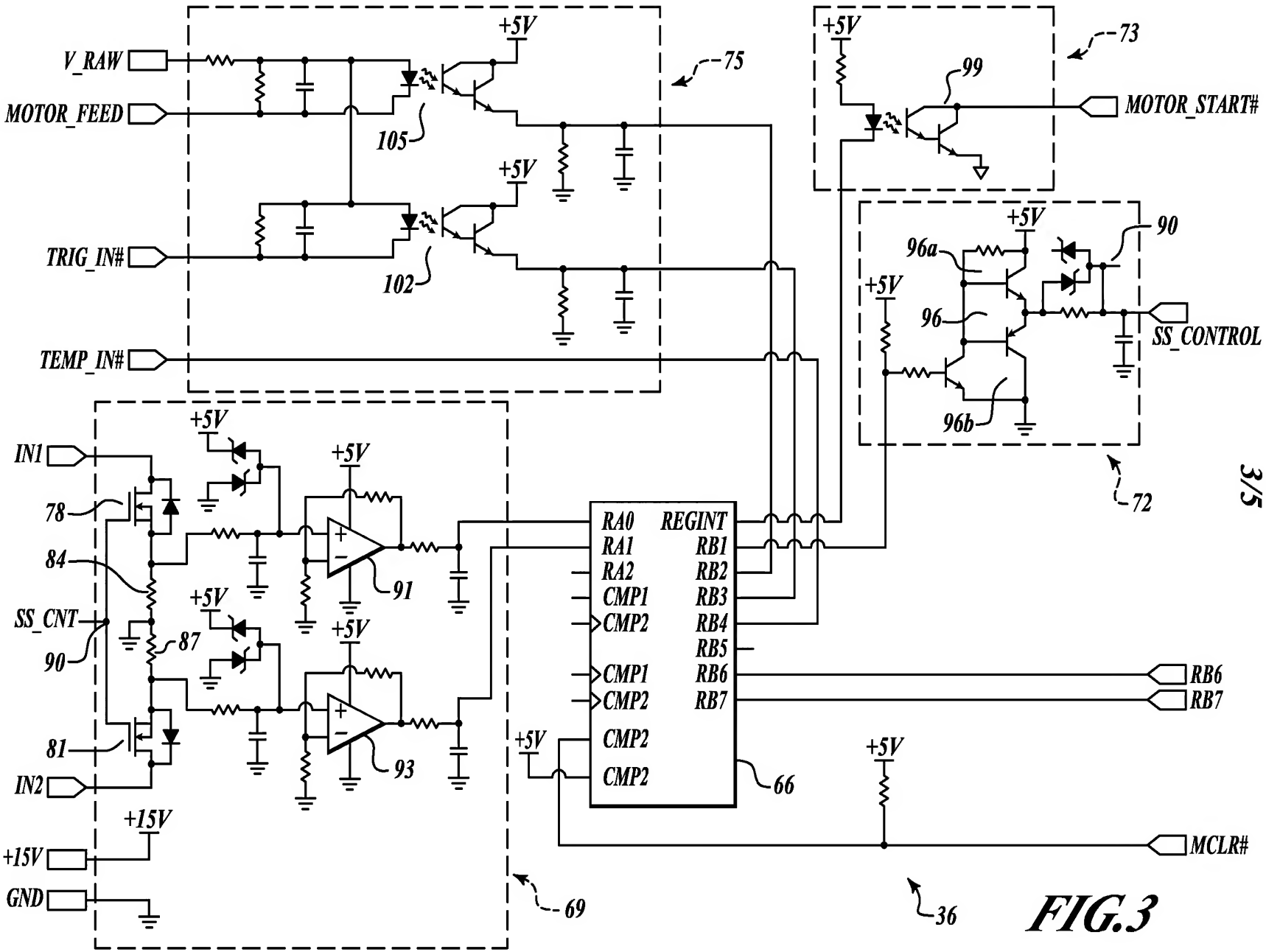
V_RAW
MOTOR_FEED
TRIG_IN#
TEMP_IN#
+5V
75
105
102
73
99
MOTOR_START#
90
96a
96
96b
SS_CONTROL
72
IN1
78
84
SS_CNT
90
87
81
IN2
+15V
GND
91
93
69
RA0
RA1
RA2
CMP1
CMP2
REGINT
RB1
RB2
RB3
RB4
RB5
RB6
RB7
66
MCLR#
36

FIG.3

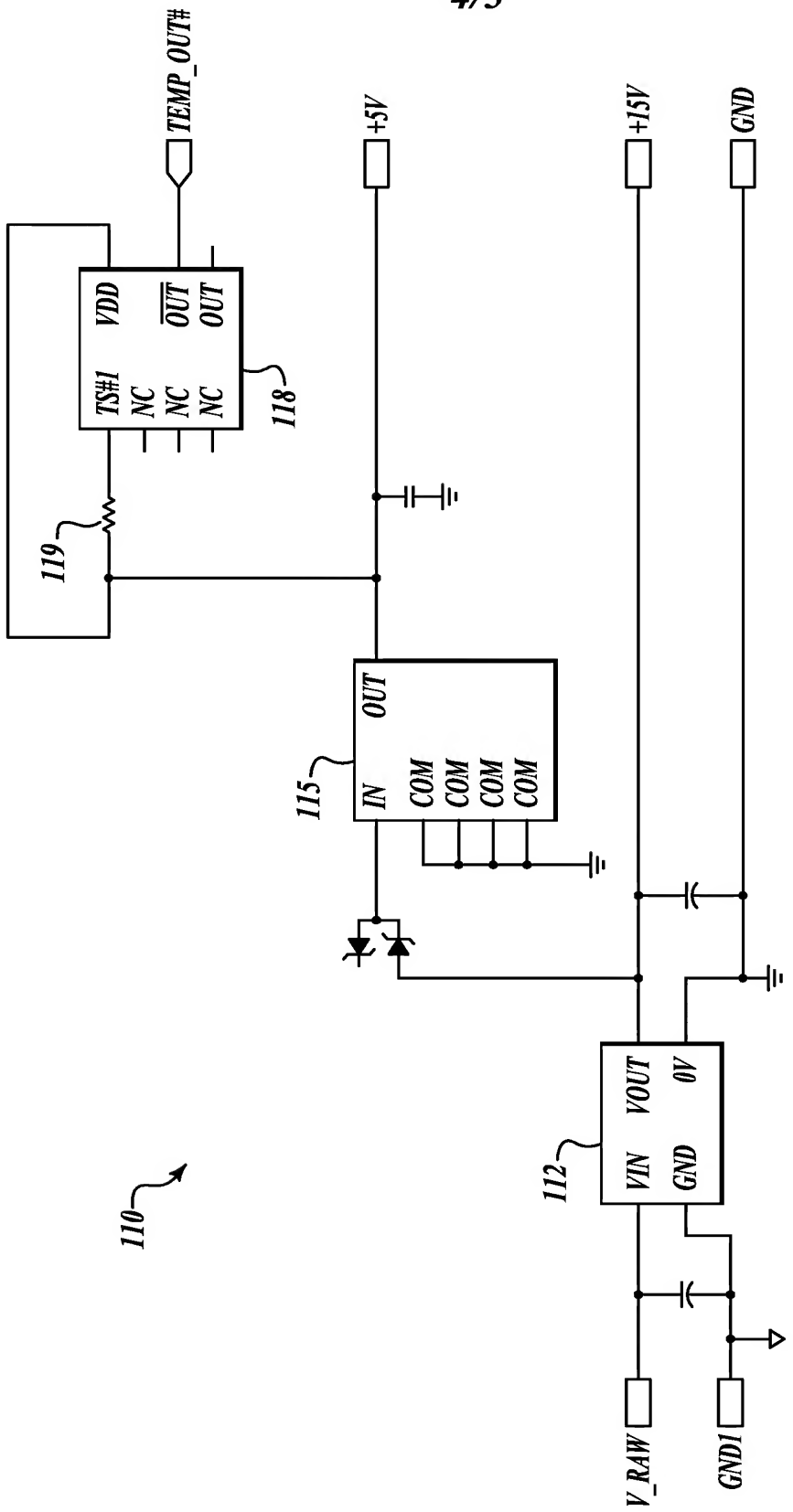
TEMP_OUT#
+5V
+15V
GND
VDD
OUT
OUT
TS#1
NC
NC
NC
118
119
115
OUT
IN
COM
COM
COM
COM
112
VOUT
0V
VIN
GND
V_RAW
GND1
110

FIG.4

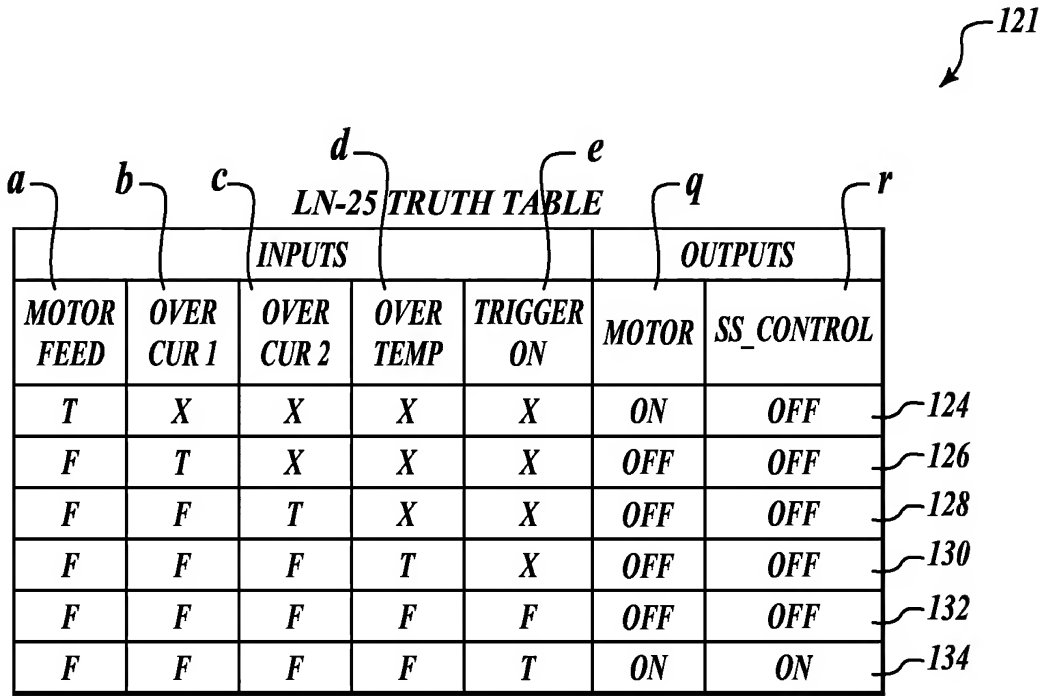
121
a
b
c
d
e
q
r
LN-25 TRUTH TABLE
INPUTS
OUTPUTS
MOTOR FEED
OVER CUR 1
OVER CUR 2
OVER TEMP
TRIGGER ON
MOTOR
SS_CONTROL
T X X X X ON OFF 124
F T X X X OFF OFF 126
F F T X X OFF OFF 128
F F F T X OFF OFF 130
F F F F F OFF OFF 132
F F F F T ON ON 134

FIG.5